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ART UNIT	PAPER NUMBER
3688	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/559,937	CARR ET AL.
	Examiner	Art Unit	
	KHANH H. LE	3688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>12 November 2010</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>19-35 and 54-70</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>19-35 and 54-70</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>03/31/05</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to the Amendment and Response filed 12 November 2010, herein "Resp.".

Claims 19-35 and 54-70 (drawn to using block data) are pending. Claims 1-18, 36-53, 71-78 are cancelled. Claims 19 (system), 25 (system), 54 (method), 60 (method) are independent claims.

Claim Rejections - 35 USC § 101

2.   Previous rejections of claims 54-59 and 60-70 under this section are withdrawn following amendments that overcame the rejection.

Drawings

3.   The drawings are objected to under 37 CFR 1.83(a). **The drawings must show every feature of the invention specified in the claims.**

Therefore, each of the programming steps in claim 60 and its dependents must be shown or the feature(s) canceled from the claim(s).

Further all the details of claims 19, 25, 54, and 60 and their dependents must be shown or the feature(s) canceled from the claim(s). For example each structural element of the claim **including all the specifically claimed records, fields have to be shown**, e.g. for claim 19,

"wherein said transaction data database stores a plurality of consumer records for **customers of said retail store,**

> **each one of said plurality of consumer records including** at least:

>> a CID data (consumer identification data) field indicating a consumer CID,

>> **fields (for transaction data) indicating transactions that occurred in said retail store, and**

>> at least a **first assumed non- transaction demographic (NTD) data field** for said **specified demographic; "**

> and…

"wherein said block data database stores at least one block data record for a geographic region near the location of the retail store,

each block data record storing, for its corresponding geographic region,

> a number of people or consumers residing in that region, having said specified demographic;"

> No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. **The objection to the drawings will not be held in abeyance.**

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner

and process of making and using it, in such full, clear, concise, and exact terms as to

enable any person skilled in the art to which it pertains, or with which it is most nearly

connected, to make and use the same and shall set forth the best mode contemplated by

the inventor of carrying out his invention.

**4.   Claims 19-24 and 54-59 are rejected under 35 U.S.C. 112, first paragraph, as
failing to comply with the written description requirement. The claim(s) contains subject
matter which was not described in the specification in such a way as to reasonably convey
to one skilled in the relevant art that the inventor(s), at the time the application was filed,
had possession of the claimed invention.**

Clear Support cannot be found for "whether to store... etc.. " in the phrase

"wherein said computer system is programmed to determine from said transaction data
associated with the corresponding one of said plurality of consumer records, whether to store a
first demographic value in the corresponding first assumed non-transaction demographic data
field associating said specified demographic with the corresponding one of said plurality of
consumer records; ".

Para. [0207] cited by applicant does not support "whether to store a first demographic
value" in such field for "said specified demographic".

[0207] recites. In step 210, system 20 runs software or implements in hardware a form
of predictive modeling to analyze a set of data for multiple CD records in
database 30. The predictive modeling identifies correlations between the
existence of transactions in one or more classes of transactions in one or more
time periods and known demographic data. The predictive modeling may also
include other correlations, such as correlations based upon a consumers, block
data and loyalty quotients to the known demographic data. The predictive
modeling of course does that on a record by record basis, wherein each record
is associated with one CID. The correlations identified above are then used to

analyze CID data records wherein the value of the relevant demographic variable
is unknown to determine either an **assumed** value for that variable or
probabilities or expectations that the value of the demographic variable has
certain values. That is, one or more correlations are used to define a
function in the manner already described to generate a probability, prediction,
or ranking relative to other records for a demographic variable to **assume** for a
CID.

That is [0207] discloses modeling .. "to determine either an assumed value" (for a
variable) " or probabilities ..that the value of the ..variable has certain values". .." to generate a
probability, prediction, or ranking relative to other records for a demographic variable to
assume for a CID." This means at the end of the modeling, some value is determined, either a
probability, prediction, or ranking, for an assumed variable. That means some value <u>will be</u>
stored. **There is no support for "whether to store".**

Note that the standard to overcome a new matter rejection is inherency and not
obviousness. See MPEP 2163.07(a).

"To establish inherency, the extrinsic evidence 'must make clear that the missing
descriptive matter is necessarily present in the thing described in the reference, and that it
would be so recognized by persons of ordinary skill. Inherency, however, may not be
established by probabilities or possibilities. The mere fact that a certain thing may result
from a given set of circumstances is not sufficient.'" In re Robertson, 169 F.3d 743, 745,
49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)(citations omitted).

Here it is not even obvious from [0207] that there is a decision of "whether to store".
A search of the whole disclosure does not disclose clear support for that limitation either.

Independent method claim 54 parallels claim 19 and is rejected for the same reasons.
Dependent claims 20-24 and 55-59 of claims 19 and 54 are rejected based on their
dependencies. Appropriate correction is required.

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

6.   **Claims 19-24 and 54-59 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the subject
matter which applicant regards as the invention.**

Because there is no support for claims 19-24 and 54-59 as explained above, the meaning
and scope of the claims are not clear and indefinite.

Note also that Applicants argue at Resp. p. 6 that CONKWRIGHT does not disclose
assuming values for non transaction demographic fields based upon transaction data. But that is
not claimed. The limitation is to determine "whether to store" a value based on the transaction
data. **Because the argument and the claim limitation do not match, the claims meaning and
scope is indefinite.**

Appropriate correction is required.

7.   **Claims 19-24 and 54-59 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the subject
matter which applicant regards as the invention.**

Claims 19, 54:
"using **at least data stored in said <u>first assumed NTD data fields </u>for records in said
transaction data database** and <u>number of people residing or consumers in said region stored in</u>
said block data database **to estimate said fraction" <u>is indefinite.</u> Indeed it is not clear at all
how the fraction can be arrived from only** <u>number of people residing in the region consumers</u>
<u>in said region and a</u> **first assumed NTD data.** It is not clear <u>what</u> data in "said <u>first assumed</u>
<u>NTD data fields </u>for records in said transaction data database" is being used and <u>how</u> it is being

used to determine the fraction. The limitation and the claim scope are also indefinite because to

obtain the fraction more than the above 2 claimed data have to be used. That is at least a

numerator and a denominator must be used and the said **first assumed NTD data** cannot be one

of them.

      Applicants cite Specification at [0087] as support (the bolded language is cited by
Applicant) :   In another aspect, the invention provides a system and method for
estimating a fraction of people having a specified demographic value that both
shop in a specified retail store and live in a specified block region
comprising: a **transaction** data database; a block data database; a computer
system having read and write access to said **transaction** data database and said
block data database; and wherein said **transaction** data database stores a
plurality of consumer records each including at least a CID data (consumer
identification data) indicating a consumer CID and a first assumed
non-**transaction** demographic data **field** for storing **assumed non-transaction
demographic data for customers of said retail store**; wherein said block data
database stores at least one block data record for a geographic region near the
location of the retail store, each block data record storing, for its
corresponding geographic region, a number of people or consumers residing in
that region, and a number of people or consumers having said specified
demographic value; and means or code for using data stored in said both said
transaction data database and said block data database to estimate said
fraction of people having said specified demographic value that both shop in
said specified retail store and live in said specified block region.

Additional aspects of this invention include means or code for generating a
decision whether to target market to consumers associated with said specified
demographic value that live in said geographic region;

means or code for
determining a number of consumers associated with said specified demographic
value that live in said geographic region;

 means or code for **determining
whether to target market to consumers in said geographic region based upon
either said number of consumers associated with said specified demographic
value that live in said geographic region or an estimate of a ratio of number
of consumers associated with said specified demographic value that live in said
geographic region to total number of consumers that live in said geographic
region;**

means or code for determining an estimate of total value of goods

purchased from said retail store by consumers associated with said specified
demographic value that live in said geographic region;

and means or code for
determining whether to target market to consumers residing in said geographic
region based upon an estimate of either said total value of goods purchased
from said retail store by consumers associated with said specified demographic
value that live in said geographic region to total value of goods purchased in
said block region from consumers having said specified demographic value. "

Arguably the bolded part is support for the limitation "using **at least data stored in said
first assumed NTD data fields** ... and <u>number of people residing or consumers in said region
stored in</u> said block data database **to estimate said fraction**" but the limitation is still indefinite
as explained above.

Dependent claims 20-24 and 55-59 of claims 19 and 54 are rejected based on their
dependencies. Appropriate correction is required.

8.   **Claims 25-35 and 60-70 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the subject
matter which applicant regards as the invention.**

Claims 25, 60:

" *...to use data stored in said specified transaction history variable... and number of*
people or consumers residing in said geographic region near the location of said retail store that
have a specified value or range of values for said specified transaction history variable,,... to
estimate either a fraction..." is indefinite.

     Indeed it is not clear how the fraction can be arrived from only <u>number of people or
consumer residing in the region and said specified transaction history variable.</u> It is not clear
<u>what</u> data in "<u>said specified transaction history variable</u> for records in said transaction data
database" is being used and <u>how</u> it is being used to determine the fraction. The limitation and
the claim scope are also indefinite because to obtain the fraction more than the above 2 claimed

data have to be used. That is at least a numerator and a denominator must be used and the <u>said</u> <u>specified transaction history variable cannot be one of them.</u>

All dependent of claims 25 and 60 are rejected based on their dependencies. Appropriate correction is required.

9.   Interpretation:

The lack of support and indefiniteness of the claims almost prevent examination. See In re Steele, 305 F.2d 859,134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

To advance prosecution, to apply prior art, as best can be understood from the arguments, the following limitation

"wherein said computer system is programmed to determine from said transaction data associated with the corresponding one of said plurality of consumer records, whether to store a first demographic value in the corresponding first assumed non-transaction demographic data field associating said specified demographic with the corresponding one of said plurality of consumer records;"

<u>**is interpreted as argued**</u> deriving a first assumed non-transaction demographic (NTD) value from transaction data.

Representative claim 19 is thus interpreted as a system

A system for estimating **a fraction** of people living in a block region <u>near a retail store and</u> <u>having a specified demographic, that shop in the retail store, comprising:</u>
a transaction data database;
a block data database;
a computer system having read and write access to said transaction data database and said block data database; and

wherein said transaction data database stores a plurality of consumer records for <u>customers of said retail store,</u>

> each one <u>of said plurality of consumer records</u> including at least:
>> a CID data (consumer identification data) field indicating a consumer CID,
>> <u>fields (for transaction data) indicating transactions that occurred in said retail store, and</u>
>> <u>at</u> least a first **assumed non- transaction demographic (NTD)** data field for <u>said</u> **specified demographic;**
>>> <u>and</u>

>> <u>wherein said computer system is programmed to determine from said transaction data a first demographic value (in the corresponding first assumed non-transaction demographic (NTD) data field) associating said specified demographic (i.e. said first demographic value) with the corresponding one of said plurality of consumer records;</u>

storing assumed non-transaction demographic (NTD) data for customers of said retail store;

wherein said block data database stores at least one block data record for a geographic region near the location of the retail store,

each block data record storing, for its corresponding geographic region,

> a number of people or consumers residing in that region having said specified demographic

> and a <u>number of people residing or consumers in said region;</u> and

means or code for using at least said <u>specified demographic</u> data (stored in said <u>first assumed NTD data fields</u> for records in said transaction data database) and <u>number of people residing or consumers in said region stored in</u> said block data database and a number of people or consumers residing in that region having said specified demographic to estimate said fraction.

Claim Rejections - 35 USC § 103

10.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11.   Claims <u>19</u>-24, <u>25</u>-35, and <u>54</u>-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conkwright et al, US 7302419 in view of Blasko, US 20010049620, Herz US 20010014868 and in view of admitted art.

Independent on claims 19 and 54:

CONKWRIGHT discloses monitoring set top boxes (STB) by monitoring individual users interaction with the STB events and **correlating set-top box events** with probable demographic characteristics. See abstract.

Conkwright discloses arrays (databases) corresponding to a geographical region (Col 14 line 45-60); market data collection; answers to queries for a certain demographic along a geographical region or zip (col 21 l. 36-39); manipulation of datasets (col 21 l. 49-57); **determination of a percentage of a population of a region that falls into a query category (col. 21 lines 59-61; col. 23 lines 25-34).**

CONKWRIGHT does not disclose physical retails stores. However, Blasko, in same STB art as CONKWRIGHT, discloses profiling of STB also applies to retail stores. [0083]. (Note that Blasko also discloses geographically- based databases are well-known [0146]).

Thus, if one's industry is retail shops, one would be motivated to apply the CONKWRIGHT's predictive method to retail stores since these methods can be applied equally in both arts, as taught by Blasko.

Further, Herz US 20010014868 teaches system for automatic determination of customized prices and promotions based on extensive consumer profiles databases collected at the point of sale ([0262]: **transaction records correlated to customer ID's) including past transaction histories and reactions to promotions (abstract, [0024]).** Thus it would have been obvious to replace the CONKWRIGHT's STB consumer data with Herz's retail store consumer data, if market research for targeting purposes by a physical retailer is desired.

Further, note as to the particular claimed database configuration, of records and fields, a skilled artisan in database arts would have known at invention time, how and in which database to store the values of the different claimed data as needed based on system

configuration and needs,(e.g. for data access, management, or programming efficiency)

including the specific database configuration as claimed. Note that the specification at [106], in

discussing the format of the database used in the invention, admits that *"it will be apparent to*

those skilled in database programming that the relations between the data may be otherwise than

a*s specifically described, for example, by having data stored in third normal form."*

Note: Specification [0106]:

     All data received in step 20 relating to a particular consumer
identification (CID) is stored in the database in association with that CID.
The database may be formatted as flat files or as one or more relational
database files and may include <u>tables,</u> forms, queries, relations, reports,
modules, and other objects useful in database management and programming. For
convenience, the data analysis will be described below in the context of
consumer records in which each record includes a field for CID (or CID in
combination with store ID) and a large number of associated fields. However,
it will be apparent to those skilled in database programming that the relations
between the data may be otherwise than as specifically described, for example,
by having data stored in third normal form.

     Thus, in a physical retail store context, CONKWRIGHT in view of Blasko, Herz and

admitted art, disclose:

     A system and method comprising:

     a transaction database (CONKWRIGHT's users interaction with the STB events

modified by Blasko and/or Herz to apply to a retail store) database;

     wherein said transaction data database stores a plurality of consumer records for

<u>customers of said retail store,</u>

     each one <u>of said plurality of consumer records</u> including at least:

     a CID data (consumer identification data) field indicating a consumer CID <u>fields</u>

<u>(for transaction data) indicating transactions that occurred in said retail store</u> (

CONKWRIGHT's consumer identification data or STB geo-coded ID, see col. 4 lines

61-67; also Blasko's and Herz's CID's)<u>, and;</u>

     <u>at</u> least a first **assumed non- transaction demographic (NTD)** data field for <u>said</u>

specified demographic (CONKWRIGHT 's probable demographic characteristics, see abstract for customers of a local data center broadcasting to local STB's , CONKWRIGHT's local data center being the equivalent of **a retail store; also modified by BLASKO and HERZ to apply to retail stores; see also Blasko, para 47, 48 assumed inferred NTD data**);

and
a block data database (e.g. CONKWRIGHT's database corresponding to geographic regions modified further as above discussed);

wherein said block data database stores at least one block data record for a geographic region near the location of the retail store,
each block data record storing, for its corresponding geographic region,
a number of people or consumers residing in that region, having said specified demographic and a <u>number of people residing or consumers in said region</u> having said specified demographic; (obvious so that answers to queries for a certain demographic along a geographical region or zip, CONKWRIGHT, col 21 l. 36-39, can be done);

and

a computer system having read and write access to said transaction data database and said block data database;
storing assumed non-transaction demographic (NTD) data for customers of said retail store (CONKWRIGHT 's probable demographic characteristics, see abstract for customers of a local data center broadcasting to local STB's , **Conkwright**'s local data center being the equivalent of **a retail store; also modified by BLASKO and HERZ to apply to retail stores; see also Blasko , para 47, 48 assumed inferred NTD data**);

Since CONKWRIGHT discloses determination of a percentage of a population of a region that falls into a query category (col. 21 lines 59-61; col. 23 lines 25-34), it would have been obvious for a store to use the method of CONKWRIGHT to determine a

percentage of a population of a region that falls into a query of "buying at this retail store" category. This is just market share analysis. CONKWRIGHT discloses that its invention is for market research as well as to plan services including advertisers'. Col. 34 lines 20-28. This reads on making decisions whether to market based on such market research. A physical retail store would be motivated to apply the market analysis method of Conkwright to determining whether to advertise or not based on such market research. **That is, a store would like to find out how many of its purchasers live in its surrounding neighborhood to assess its chance of marketing success. Since Conkwright method of determination of a percentage of a population of a region that falls into a certain query category (col. 21 lines 59-61;col. 23 lines 25-34) allows such market research, it would have been obvious to one having ordinary skill in the art at the time of the invention (herein a "PHOSITA") to use Conkwright method to answer the query of the fraction of buyers of this store that live in the neighboring region.** Further since **Conkwright and Blasko and Herz teach many consumer demographic factors can be studied** for targeting purposes, it would have been obvious to a PHOSITA to further the inquiry to include another demographic factor such as submitting to the Conkwright-Blasko-Herz and admitted art system a query such as **"what is the fraction of 20 year old females (a specified demographic) that shop in this Alexandria,VA store and live in Alexandria,VA?"**

Since CONKWRIGHT has database of consumers transactions and has databases organized along geographical parameters with attributes of the consumers, and since **CONKWRIGHT also discloses determination of a percentage of a population of a region that falls into a query category (col. 21 lines 59-61; col. 23 lines 25-34), it is interpreted** , in the physical retail store context, CONKWRIGHT in view of Blasko, Herz,and admitted art, at the citations above, and as discussed above, also disclose:

means or code for using at least said <u>specified demographic</u> data (stored in said <u>first assumed NTD data fields</u> for records in said transaction data database) (e.g. the 20 year old females) and <u>number of people residing or consumers in said region (stored in</u> said block data database) and a number of people or consumers residing in that region having said specified demographic to

estimate said fraction (e.g. the 20 year old females that shop at the store being the CONKWRIGHT's "query category"). Note that CONKWRIGHT teaches analysis of data within and between datasets in a variety of means. (col. 6 lines 4-6).

As to <u>wherein said computer system is programmed to determine from said transaction data a first demographic value (in the corresponding</u> first assumed non-transaction demographic (NTD) data field) <u>associating said specified demographic (i.e. said first demographic value) with the corresponding one of said plurality of consumer records;</u>

If this limitation can be interpreted as the assumed NTD are determined from transaction data, as argued, CONKWRIGHT does not specifically disclose assuming values for non transaction demographic fields based upon transaction data.

However, Applicant agrees (Resp.,top of p. 7) that Blasko teaches such at para. 47 and 48.

> Blasko : [0047] The principles of the present invention are flexible and one or more **heuristic** rules may be used to create various transaction profile vectors. These **heuristic** rules may be expressed in logic form which allow the use of generalizations been obtained from external studies. These generalizations assist in the characterization of the transaction data to generate a profile vector. The **heuristic** rules may also be expressed as conditional probabilities, i.e., determination of the transaction data is applied statistically to obtain probabilistic profile vectors. These probabilistic profile vectors may include demographic attributes indicating probable age, income level, gender, and other demographics.
>
> [0048] Also, **heuristic** rules for determining such demographic attributes such as probable gender or age may evolve over time or may be developed externally and thus have to be downloaded to the profile vector generator from time to time. Thus clusters of viewing profiles or signatures, for example, may be generated from which gender or age may be determined. These signatures can be downloaded to the profile generator for comparison to the current viewing profile and gender or age of the viewer can be determined or inferred.

Applicants further argue (Resp. p. 4) **no** motivation to combine this Blasko teaching to CONKWRIGHT. However CONKWRIGHT teaches probable assumed values, while Blasko teaches a method to calculate assumed non transaction demographic values based upon

transaction data from transaction data (para. 47 and 48). Thus it would have been obvious to a PHOSITA to use this Blasko's method in CONKWRIGHT as one means to obtain the assumed values taught by CONKWRIGHT.

Claims 20, 55 (dependent on claims 19, 54):

further comprising means or code for generating a decision whether to target market to consumers associated with said specified demographic value that live in said geographic region (see discussion above).

Claims 21, 56 (dependent on claims 19, 54):

further comprising means or code for determining a number of consumers associated with said specified demographic value that live in said geographic region (this step is inherent in order to calculate the fraction as discussed above).

Claims 22, 57 (dependent on claims 21, 54):

further comprising means or code for determining whether to target market to consumers in said geographic region based upon either said number of consumers associated with said specified demographic value that live in said geographic region or an estimate of a ratio of number of consumers associated with said specified demographic value that live in said geographic region to total number of consumers that live in said geographic region (as discussed above this means based on determined market share to decide to target further or not).

Claims 23, 58 (dependent on claims 19, 54):

Official Notice is taken that studying the revenue potential for a business, of a segment of consumers, from their past spending behavior at the business, is old art. Thus it would have been obvious to add to the market research and targeting (including whether to target) system along geographical lines of Conkwright-Blasko-Herz and admitted art system, "means or code for determining an estimate of total value of goods purchased from said retail store by consumers associated with said specified demographic value that live in said geographic region" in order to study the market and make the targeting decisions along that parameter.

Claims 24, 59 (dependent on claims 23, 58):

Official Notice is taken that studying the revenue potential for a business, of a segment of consumers, from their past spending behavior at the business, as compared to their total purchasing power, is old art. Thus it would have been obvious to add to the market research and targeting (including whether to target) system along geographical lines of Conkwright-Blasko-Herz and admitted art system, "means or code ..to estimate of either said total value of goods purchased from said retail store by consumers associated with said specified demographic value that live in said geographic region to total value of goods purchased in said block region from consumers having said specified demographic value" to allow market research and making targeting decisions based on that parameter.

Claims 25-27 and 60-62:

Independent claims 25 and 60 are similar to claim 19 or 54 (thus they are rejected likewise); except for the variable being associated with the consumer being" **a specified value or range of values for a specified transaction history variable"**; Herz discloses a certain monitored value is e.g. particular products purchased.

(See e.g. Herz, [0005]: "shoppers can be profiled in terms of both their demographic characteristics (age, income, family structure, ethnicity, and the like) and their past shopping behavior (products purchased, length of time since last purchase, allocation of browsing time, attention span, price sensitivity, interest in detailed features, impulse buys, use of coupons, and the like).";

Thus it would have been obvious to a PHOSITA to study **the market share (estimate of a fraction as taught by CONKWRIGHT as discussed above),** as to a specified transaction history variable (e.g. a certain product as taught by Herz), to determine whether to target such a group of consumers as taught by Herz.   Note that the amended limitations of claims 25 and 60 are essentially the same as their previous limitations except for where the" specified value or

range of values for a specified transaction history variable" is stored. Also the claim is couched in programming language.

As stated above, a skilled artisan in database arts would know in which database to store the values of the "specified transaction history variable" as needed based on system configuration and needs,(e.g. for data access efficiency) including the specific database configuration as claimed. Note that the specification at [106], in discussing the format of the database used in the invention, admits that "it will be apparent to those skilled in database programming that the relations
between the data may be otherwise than as specifically described, for example,
by having data stored in third normal form."

It would have been further obvious that the computer would have to be programmed to do all the claimed steps or functionalities to effect the results of CONKWRIGHT in view of Blasko and Herz as discussed above.

Thus CONKWRIGHT in view of Blasko, Herz and the admitted art, as discussed above disclose the system and method of claims 19 or 54 and further disclose:

said computer system programmed to determine whether to target market to either said block region or to at least one consumer residing in said block region based upon at least said estimate of said fraction or said absolute number
wherein "said fraction or said absolute number" is defined by the recitation:
said computer system programmed to use data (stored in said specified transaction history variable fields for said plurality of consumer records in said transaction history database), and number of people or consumers residing in said geographic region near the location of said retail store that have **a specified value or range of values for said specified transaction history variable** (stored in said at least one block data record in said block data database), **to estimate either a fraction or an absolute number** of consumers residing in said block region having transaction data having either said specified value or said range of values for said specified transaction history variable; and

Contrary to argument, Conkwright, Blasko, and Herz do indeed disclose or suggest as discussed above, estimating a fraction or an absolute number of people in a block region near a retail store that have a specified transaction variable value or range of values, or, making such an

estimate from block data for that region near the retail store in conjunction with transaction history data for transactions from that retail store.

Note for claims 26 and 61, in order to calculate a fraction, as in claim 26 or 62 as taught above, one inherently would have to estimate an absolute number of consumers.

Claims 28-32 and 63-67 (dependent on claims 25 or 60):

Official Notice is taken that the following parameters are well-known to have been monitored for analysis of consumer behaviors:

quantity of spending in a prior time period;

quantity of purchase of a specified product in a prior time period;

quantity purchase in a specified class of products in a prior time period;

a measure of redemption of transaction incentives In a prior time period;

a measure of redemption of transaction incentive in a specified class of transaction incentives in a prior time period;

(See e.g. citations to Herz above for support of some of the Official Notices).

Thus it would have been obvious to monitor such "specified transaction history variable" and add such to the Conkwright-Blasko-Herz and admitted art system to allow targeting based on the above well-known factors.

The Conkwright-Blasko-Herz and admitted art system, as discussed above, further discloses:

Claims 33 and 68 (dependent on claims 25 or 60):

wherein said means or code for

determining whether to target market to either said block region or to at least one customer residing in said block region also depends upon at least demographic data variable (excerpts above).

Claims 34-35 and 69-70 (dependent on claims 25 or 60):

wherein said means or code for determining whether to target market to either said block region or to at least one customer residing in said block region also depends upon at least one derived data variable or upon at least one mixed data variable (CONKWRIGHT teaching analysis of data within and between datasets in a variety of means. (col. 6 lines 4-6) suggests analysis along "derived data variables" or "mixed data variable").

As to Claims 34-35 and 69-70, alternatively, Herz at [0039]: deduced consumer interest, from behavior, or [0039] : rank from 0 to 10, reads on "derived data" or "mixed data variable". Thus it would have been obvious add the parameters taught by Herz to the combination CONKWRIGHT to allow studying along these parameters).

Alternative Rejection

12.   Claims 19-24, 25-35, and 54-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conkwright et al, US 7302419 in view of Blasko, US 20010049620 , Herz US 20010014868 and in view of admitted art.

This alternative rejection is based on an interpretation that the new limitations do **not** properly claim an assumed NTD calculated or determined based upon transaction data. The limitation is to determine "whether to store" a value based on the transaction data. There is no support for the limitation that is indefinite and thus can be ignored per In Re Steele, supra. No other claim language properly claim an assumed NTD calculated or determined based upon transaction data.

For brevity all limitations as to all claims (19-24, 25-35, and 54-70) are rejected by the cited prior art as discussed in the rejection at paragraph 11 above. Except Blasko does not have to be used to disclose the limitation that is not properly claimed.

Response to Arguments

13.   Applicant's arguments filed 12 November 2010 have been fully considered but they are not persuasive. The Examiner agrees in general with the matching of the references to claim 19 limitations as shown by Applicant in Resp. pp 5-8 except as next discussed.

a) Appellant argues (Resp. p. 5 and 8) there is no disclosure of a system, means or code for **estimating a fraction of people living in a block region near a retail store and having a specified demographic, that shop in the retail store**. However a percentage is a fraction. For example 50% is a fraction of 50/100. CONKWRIGHT teaches **determination of a percentage of a population of a region that falls into a query category (col. 21 lines 56-61; col. 23 lines 25-34).** Consider last Office Action ("OA") at p. 9, 11-12.

"Since CONKWRIGHT has database of consumers transactions and has databases organized along geographical parameters with attributes of the consumers, and since **CONKWRIGHT also discloses determination of a percentage of a population of a region that falls into a query category (col. 21 lines 59-61; col. 23 lines 25-34), it is interpreted CONKWRIGHT discloses:**

means or code for using data stored in said both said transaction data database and said block data database **to estimate said fraction of people having a specified demographic value and live in said specified block region.**"

b) **Applicants further argue (Resp. p. 6, at bottom, right) CONKWRIGHT does not disclose assuming values for non transaction demographic fields based upon transaction data. But that is not claimed.** The limitation is to determine "whether to store" a value based on the transaction data. There is no support for the limitation that is indefinite and thus ignored per In Re Steele, supra. **See alternate rejection above at paragraph 12.**

c) **To the extent that the limitation can be interpreted as assumed NTD are determined from transaction data, as argued, see the main rejection above at paragraph**

d) It is noted that arguably the prior art needs not be applied to any of the claims, per in Re Steele, supra due their great indefiniteness.

e) The Examiner also notes all above Official Notices, taken earlier (Office Action of 04/29/2010 at p. 12) were not challenged, thus taken as admitted. MPEP 2144.03.

Conclusion

14.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh H. Le whose telephone number is 571-272-6721. The Examiner works a part-time schedule and can normally be reached on Monday-Wednesday 9:00-6:00. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John Weiss can be reached on (571)272-6812. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-3600. For patent related correspondence, hand carry deliveries

must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314). Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh H. Le/
Primary Examiner, Art Unit 3688